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NOTES ON *ERIGERON VICINUS* (ASTERACEAE: ASTEREAE), A RARE SPECIES IN TEXAS

GUY L. NESOM
2925 Hartwood Drive
Fort Worth, TX 76109, USA
www.guynesom.com

ABSTRACT

Erigeron vicinus Nesom is documented by collections from Brewster Co. and Jeff Davis Co., Texas. It was described from populations in the Sierra Madera del Carmen of Coahuila, Mexico, and previously known from the USA only by the collection from Jeff Davis Co., Texas. A distribution map of known localities for the species and color photos of the collections from Texas and Mexico are provided

KEY WORDS: *Erigeron vicinus*, Astereae, rare species, Texas, Coahuila, Mexico

Erigeron vicinus Nesom was described from populations in the Sierra Madera del Carmen of Coahuila, Mexico (Nesom 1990), where it was first thought to be endemic. A collection from the Davis Mountains in Jeff Davis Co., Texas, was discovered later and was the basis for inclusion of the species in the FNANM account (Nesom 2006). A second collection from Texas has been encountered, as cited and mapped here (Fig. 1).

USA. Texas. Brewster Co.: Big Bend National Park, Chisos Mountains, along Juniper Canyon Hiking Trail on the "Basin" side, common in oak-juniper-pine woodland, 20 May 1985, *Porter 1166* (SJNM). **Jeff Davis Co.**: in seepage, up Madera Canyon, on north slope and summit of Mt. Livermore, 20 Sep 1966, *Correll 33741* (LL). Figs. 2–4.

Erigeron vicinus is recognized by a fibrous-rooted, rhizomatous habit (caudices with rhizomelike, relatively slender, lignescent, basal offsets 1–7 cm) and simple or few-branched stems, spatulate and long petiolate basal leaves, and heads on relatively long peduncles. The stems are finely and loosely strigose distally and pilose proximally with spreading-deflexed hairs, completely eglandular. The holotype at TEX (TEX-LL Type Database and Images 2010) clearly shows several basal rosettes connected by rhizomes (or basal offsets) to a central point.

Fryxell 2724 from Coahuila (Fig. 5) is typical in morphology for *Erigeron vicinus* and regularly shaped and filled pollen indicates that it is diploid. The Brewster Co. collection also is typical in morphology. Abortive pollen of the Jeff Davis Co. collection (see notes on sheet) indicates that it probably was polyploid. The tall stems with linear proximal cauline leaves are similar to *E. modestus* A. Gray, which is common in the area and perhaps contributed a genome to the plant.

Erigeron vicinus was not included in the account of rare species in Texas (Poole et al. 2007), but with only two known occurrences in Texas (S1) and 6–20 global occurences (G2), it apparently is equivalent in status to others characterized as rare in Texas.

Erigeron vicinus Nesom, Phytologia 69: 256. 1990. **TYPE: Mexico. Coahuila**. Mpio. Ocampo, Sierra Madera del Carmen, logging road ca 1 km past Campo 4 in mesic forest, ca. 2500 m, 15 Apr 1976, *D. Riskind & T. Patterson 1988* (holotype: TEX!; isotypes: MEXU, TEX!). Digital image of holotype: http://129.116.69.198:427/pics/ready/00373583.JPG.

Perennials, 10–30 cm; rhizomatous, fibrous-rooted, caudices with rhizomelike, relatively slender, lignescent, basal offsets 1–7 cm. **Stems** ascending, branched at or below midstems, pilose on proximal 1/3, hairs spreading-deflexed, loosely strigose distally, eglandular. **Leaves** basal, usually persistent, and cauline; basal blades lanceolate to oblanceolate or narrowly obovate, 10–30 × 3–10 mm, cauline little reduced distally, margins entire or with 1–2 pairs of teeth, loosely strigose with ascending hairs, eglandular. **Heads** 1(–2) on branches from or proximal to midstem. **Involucres** 4–5 × 7–10 mm. **Phyllaries** in 2–3 series, sparsely hirsute, sparsely minutely glandular. **Ray florets** 60–95; corollas white, with lilac abaxial midstripe, 7–10 mm, laminae not coiling or reflexing. **Disc corollas** 1.8–2.2 mm, throats slightly indurate or inflated. **Cypselae** 0.6–0.8 mm, 2-nerved, faces sparsely strigose. **Pappus**: outer of scales, inner of 8–11 bristles.

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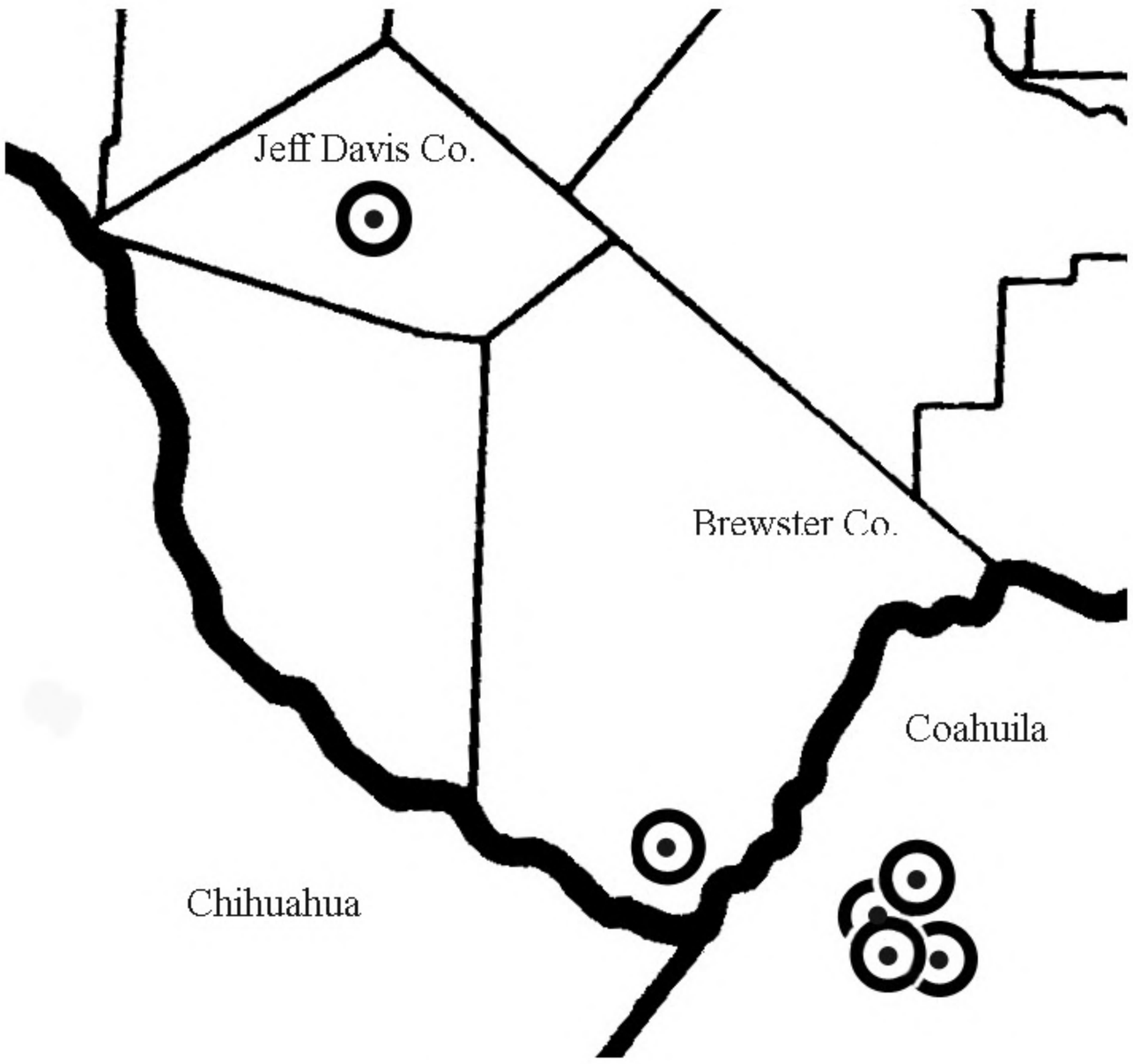

Figure 1. Distribution of *Erigeron vicinus*.

SJC
003741
Herbarium
Name Erigeron modestus Gray.
Date May 20, 1955 Col. & No. J. Mark Porker 1166
Sec T. R.
Locality USA. Texas. Brewster County. Big Bend
National Park, Chisos Mountains. along Juniper
Notes Canyon Hiking trail on the "Basin" side -
in Oak/Juniper/Pine woodlands - common
Erigeron vicinus
Nesom 2010

Figure 2. *Erigeron vicinus* from Brewster County, Texas (*Porter 1166*).

Figure 3. Close-up of plants from *Porter 1166*.

Treated in 1967 with
lauryl pentachlorphenate!
HERBARIUM OF THE UNIVERSITY OF NORTH CAROLINA
pollen avg (18.3) 20 (29.0) μ diameter (filled grains)
ca 60% empty . micro-grains common
—POLYPLOID—
Guy Nesom 1978
LUNDELL HERBARIUM
The University of Texas
AUSTIN, TEXAS
Cite: LL
Studies in Erigeron
Erigeron vicinus Nesom
G. Nesom 2010
The University of Texas Herbarium (LL, TEX)
Erigeron modestus Gray
Determined by B. L. Turner, 2001
HERBARIUM OF THE UNIVERSITY OF NORTH CAROLINA
E. modestus complex
Guy Nesom 1979
cm
copyright reserved
TEX
MANUAL OF THE VASCULAR PLANTS OF TEXAS
Erigeron modestus A. Gray
DETERMINED BY MARSHALL C. JOHNSTON 1967
PLANTS OF TEXAS
LUNDELL HERBARIUM, TEXAS RESEARCH FOUNDATION
Erigeron
Jeff Davis Co.: in seepage, up Madera Canyon
on north slope and summit of Mt. Livermore.
Flowers pinkish.
D. S. CORRELL No. 33741 September 20, 1966
University of Texas - Austin (LL, TEX)
00010660

Figure 4. *Erigeron vicinus* from Jeff Davis County, Texas (*Correll 33741*).

LUNDELL HERBARIUM
The University of Texas
AUSTIN, TEXAS
Cite: LL
TEX
0 1 2 3 4 5 6 7 8 9 10 cm
copyright reserved
Electronic Catalogue of Mexican Asteraceae (TEX, LL)
Erigeron vicinus G. L. Nesom
Det: B. L. Turner, 19 Mar 1998
HERBARIUM OF THE UNIVERSITY OF NORTH CAROLINA
Erigeron vicinus Nesom
Nesom 1990
pollen: 7-8 en (930x)
: very regular in size
>95% filled with cytoplasm
probably 2X & sexual
P
University of Texas - Austin (LL, TEX)
00071089
U.S. Department of Agriculture
Agricultural Research Service – Crops Research Division
Cotton Branch Herbarium
Erigeron flagellaris A. Gray
MEXICO: COAHUILA: Madera del Carmen: upper end of Dos Canyon at road fork to Campo Uno; alt. 7500 ft; common on forest floor; ligules white fading rose; centers yellow.
Collector: P. Fryxell
Date: 23 June 1976
No. 2724

Figure 5. *Erigeron vicinus* from the Sierra Madera del Carmen in Coahuila, Mexico (*Fryxell 2724*).